

**IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF ILLINOIS  
EASTERN DIVISION**

ATOS, LLC d/b/a RIDEMETRIC,	)	
	)	
Plaintiff,	)	
	)	No. 20-cv-06224
v.	)	
	)	Judge Andrea R. Wood
ALLSTATE INSURANCE CO., et al.,	)	
	)	
Defendants.	)	

**MEMORANDUM OPINION AND ORDER**

Plaintiff Atos, LLC d/b/a RideMetric (“RideMetric”) has sued Defendants Allstate Insurance Co. (“Allstate”), Esurance Insurance Services, Inc. (“Esurance”), and Arity, LLC (“Arity”) for alleged improper use of RideMetric’s proprietary technology. RideMetric develops solutions to help track driver behavior; specifically, its technology seeks to leverage the internal sensors of portable devices, such as smartphones, to observe a vehicle’s movements. That information can then be used in a variety of ways, including to monitor the driving habits of a particular individual and calculate personalized insurance rates. To this end, in late 2015, RideMetric met with Allstate and Arity to discuss how its solutions could be incorporated into Allstate’s mobile application for customers participating in its safe-driving program. In early 2016, Allstate and Arity ceased communications with RideMetric. Shortly thereafter, Defendants’ applications appeared to incorporate elements related to RideMetric’s patented and proprietary information. RideMetric subsequently brought the present lawsuit asserting claims for patent infringement, breach of contract, and trade secret misappropriation. Defendants now move to dismiss all claims. For the reasons stated below, Defendant’s motion is granted with respect to the

patent infringement claims and denied with respect to the state-law claims for breach of contract and misappropriation of trade secrets.

## BACKGROUND

When deciding a motion to dismiss, the Court accepts the well-pleaded facts in the complaint as true and views them in the light most favorable to the non-moving party—in this case, RideMetric. *See, e.g., Anicich v. Home Depot USA, Inc.*, 852 F.3d 643, 648 (7th Cir. 2017). The following allegations are taken from RideMetric’s complaint.

RideMetric describes itself as a pioneering developer of smartphone-based telematics<sup>1</sup> solutions, especially in the field of driver monitoring solutions. (Compl. ¶ 2, Dkt. No. 1.) The ability to identify automatically vehicle operation attributes, such as speed, location, and operational state (*i.e.*, whether the engine is on or off), is useful in a variety of scenarios. For instance, such technology can be used to block the use of certain smartphone applications (such as texting) while driving, help employers monitor the location of their fleet’s vehicles (or anxious parents keep track of teenage drivers), or record the location of the last spot a vehicle was turned on to help users determine where they parked their cars. (*Id.* ¶¶ 14–16.) And, of particular relevance here, telematics solutions can be used to record detailed information about the driving habits of individual insureds. (*Id.* ¶ 13.) Insurers can then use that data to provide customized rates, rewarding safe drivers with lower costs. (*Id.*) Such programs, which tie rates to driving behavior, are commonly referred to as “usage-based” insurance programs.

Around 2008, Zarick Schwartz and Roy Schwartz (collectively, “Inventors”), realized that a smartphone’s internal accelerometer and other internal sensors could be leveraged to identify

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<sup>1</sup> Telematics combines the fields of telecommunications and informatics, that is, computer systems, to collect, transmit, and analyze information. Most commonly, telematics technology is used to track vehicles, especially for purposes of commercial fleet management.

various vehicle operation attributes, including those described above. (*Id.* ¶¶ 21–27.) According to RideMetric, use of those sensors represents a significant improvement over alternative driver monitoring solutions. (*Id.* ¶ 17.) A smartphone’s built-in GPS functionality, for instance, cannot distinguish between slow-moving cars and fast-moving pedestrians and is too battery-intensive to sustain constant use throughout the day. (*Id.* ¶ 19.) Although use of an On-Board Diagnostic (“OBD”) dongle<sup>2</sup> connected to a vehicle’s On-Board Diagnostic System (“OBDS”) solves issues related to accuracy and battery power, installation is costly and may potentially interfere with a vehicle’s functioning. (*Id.* ¶ 18.) RideMetric applied for and received three patents in connection with this concept: No. 8,527,140 (Compl., Ex. A (“’140 patent”), Dkt. No. 1-1.), No. 9,152,609 (Compl., Ex. B (“’609 patent”), Dkt. No. 1-2.), and No. 9,846,174 (Compl., Ex. C (“’174 patent”), Dkt. No. 1-3.).

The ‘140 patent, filed in 2010 and issued in 2013, relates to a method for determining the operational state of a vehicle and, in response to information about that state, performing an action. As described in the specification, the method recited in RideMetric’s patent could be used to help monitor the availability and location of parking spots, or to notify phone applications that the car is in motion and disable certain alerts or automatically adjust volumes. Claim 1 of the ‘140 patent recites:

A method of performing one or more actions on a portable device carried by an individual comprising:

Monitoring at least one operation indicator continuously and transparently to the individual, wherein the at least one operation indicator is created by an on-board component of the portable device when the portable device is located inside a vehicle;

Detecting when the at least one operation indicator meets one or more predetermined criteria;

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<sup>2</sup> A dongle is a device that plugs into a hardware port (here, the On-Board Diagnostic port of a vehicle) to provide additional features (here, monitoring driver behavior).

Determining one or more operational states of the vehicle based on the one or more predetermined criteria;

Determining the one or more actions based on the one or more operational states of the vehicle;

Performing the one or more actions on the portable device;

Determining the one or more actions based on at least one change in the operational state of the vehicle occurs; and

Wherein the at least one change in the operational state comprise [*sic*] at least one of the following: a change from a vehicle is moving state to a vehicle movement is lingering state; a change from a vehicle engine is on state to an engine is off state; a change from a vehicle is moving state to a vehicle is stationary state; a change from a vehicle speed is below a predetermined speed limit state to a vehicle speed is above the predetermined limit; a change from a vehicle is stationary state to a vehicle is moving state; a change from an engine is off state to an engine is on state; and a change from an engine is off state to a vehicle is moving state.

(’140 pat., Claim 1.)

The ’609 patent, filed in 2013 and issued in 2015, similarly describes a method of monitoring “at least one operation indicator” and, based on “predetermined criteria,” “determining one or more operational states of the vehicle.” (’609 pat.) As with the ’140 patent, the ’609 patent contains claims adding various limitations. For instance, Claims 3 and 4 specify the predetermined criteria<sup>3</sup> and operation indicators to be used,<sup>4</sup> while Claims 5 and 6 address which operational

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<sup>3</sup> Claim 3 of the ’609 patent lists “pattern recognition models of the at least one operational indicator wherein the at least one operational indicator is generated at least due to one or more of the following: operation of the vehicle and movement of the portable device caused by the individual” and “one or more thresholds of the at least one operational indicator wherein the at least one operational indicator is generated at least due to one or more of the following: the operation of the vehicle and the movement of the portable device caused by the individual” as “predetermined criteria” to be used while “at least one location point of the portable device over time” and “an altitude of the portable device” are listed as indicators. (’609 pat., Claim 3.)

<sup>4</sup> Similarly, Claim 22 of the ’609 patent recites that “operation indicators” may comprise: (i) “a measurement of at least one force acting on the vehicle;” (ii) “a measurement of the vibration of the vehicle;” (iii) “a measurement of at least one kinematic quantity of rotation;” (iv) “a measurement of at least one acceleration of the portable device;” (v) “a representation of at least one noise indicator

states are to be determined.<sup>5</sup> (*Id.*, Claims 3–6.) Additionally, Claim 25 recites an apparatus claim, with the apparatus comprising “at least one sensor generating at least one operation indicator” that can then detect the “predetermined criteria” and determine the action to be taken. (*Id.*, Claim 5.) The United States Patent and Trademark Office initially rejected the claims of the ‘609 patent on the ground of non-statutory double patenting, finding that while the claims in the ‘609 patent were “not identical” to corresponding claims in the ‘140 patent, the claims were nonetheless “not patentably distinct.” (Defs’ Mem. in Supp. of the Mot. to Dismiss, Ex. 1, Dkt. No. 31-1.) In response, the Inventors filed a terminal disclaimer for the ‘609 patent, stipulating that the ‘609 patent would not be enforceable past the expiration of the statutory term of the ‘140 patent.<sup>6</sup> (*Id.*) Following that filing, the ‘609 patent was granted.

Finally, the ‘174 patent, filed in 2015 and issued in 2017, describes a method for “detecting the condition of a vehicle turning” by looking to the angles between a rotation and gravity vector. (‘174 pat., Claims 1–2.) The ‘174 patent also contains a method for “detecting a direction of a speed change vector” by looking at a “condition of a vehicle turning” and “detecting a movement vector during the turn,” and then using an estimated angle between the movement and speed change vector to determine if the speed change vector is an acceleration or deceleration

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generated by the moving vehicle;” and (vi) “a representation of at least one wireless signal associated with the vehicle” all measured at predetermined sampling periods. (‘609 pat., Claim 22.)

<sup>5</sup> For instance, determining whether the individual is a driver or whether the vehicle is a taxi, bus, carpool, or train.

<sup>6</sup> A terminal disclaimer allows a patentee or applicant to “disclaim or dedicate to the public the entire term, or any terminal part of the term, of the patent granted or to be granted.” 35 U.S.C. § 253. In other words, the patentee gives up its patent rights for a specified time period. Often, patentees whose patents face an issue of “obviousness-type double patenting” will file a terminal disclaimer. *Boehringer Ingelheim Int’l GmbH v. Barr Labs., Inc.*, 592 F.3d 1340, 1346 (Fed. Cir. 2010). Such patentees tie the statutory term of the later, non-distinct patent to the first-filed patent so as to avoid the improper extension of the statutory term of the first patent. *Id.*

vector. (‘174 pat., Claims 3–4.) Claim 5 once again covers a method of determining a vehicle’s state by monitoring “at least one operation indicator” created by an “on-board component of the [portable] device” and detecting when the operation indicator meets “one or more predetermined criteria.” (‘174 pat., Claim 5.)

In addition to the above-described patents, RideMetric developed other proprietary information and techniques relating to methods of generating accurate and reliable vehicle operation indicators using the internal sensors of the driver’s smartphone. (Compl. ¶ 35.) RideMetric also worked on techniques for integrating that technology into smartphone mobile applications for usage-based insurance programs, like those now offered by Allstate and Esurance. (*Id.*) RideMetric relies on its proprietary information and techniques, which it considers to be trade secrets, to compete in the market for driver-monitoring mobile software applications. (*Id.* ¶ 37.) Furthermore, RideMetric did not publicly disclose any of its proprietary information or techniques, and required Defendants and other third-parties to sign non-disclosure agreements before revealing or discussing any trade secrets. (*Id.* ¶¶ 34, 36.)

Independent of RideMetric, the insurance industry, including Allstate, has attempted to utilize telematics solutions to offer more competitive rates to customers. Indeed, in 2010, Allstate launched its own usage-based insurance program, “Drivewise.” (*Id.* ¶ 38.) The Drivewise program uses telematics technology to monitor customers’ driving habits, such as mileage, braking, speed, and what times of day the drivers’ drove, and provides customized rates on the basis of that information. (*Id.* ¶¶ 38, 40.) Arity analyzes the telematics data collected by Drivewise. (*Id.* ¶ 39.) Initially, the Drivewise program recorded and transmitted telematics data by connecting a dongle to the vehicle’s OBDS. (*Id.* ¶ 41.)

In 2012, Nate Bryer, then Allstate’s Usage Based Insurance General Manager and the individual in charge of overseeing day-to-day operations for Drivewise, met with Zarick Schwartz at the Chicago Telematics Conference. (*Id.* ¶ 44.) At the time, Bryer expressed doubt that a smartphone’s internal sensors could be used to determine a vehicle’s operational state. (*Id.* ¶ 45.) Individuals at Allstate continued to doubt the viability of RideMetric’s technology, even after the issuance of the ‘140 patent in 2013. (*Id.* ¶ 47.) Nevertheless, the Inventors engaged in ongoing conversations with Allstate and Arity between 2012 and 2016 regarding the potential benefits of RideMetric’s technology. (*Id.* ¶¶ 46, 48.) During those conversations, the Inventors consistently emphasized that RideMetric’s technology provided a “dongle-free” means of monitoring a vehicle. (*Id.* ¶ 46.)

In 2015, Allstate began offering a smartphone-based Drivewise application (rather than a dongle-based one). (*Id.* ¶ 56.) In October 2015, Allstate expressed an interest in incorporating RideMetric’s technology into its mobile software application, apparently on the basis that Allstate’s own applications did not have functionality analogous to that offered by RideMetric’s application. (*Id.* ¶¶ 48–49, 57.) Throughout the remainder of 2015 and into 2016, Allstate and Arity executives and technical personnel engaged in conversations with RideMetric via e-mail, conference calls, and in-person meetings regarding RideMetric’s proprietary technology. (*Id.* ¶ 48.)

To facilitate the discussions while protecting RideMetric’s trade secrets, Allstate and Arity executed a mutual non-disclosure agreement (“MNDA”) with RideMetric on December 16, 2015. (*Id.* ¶¶ 50–51.) The MNDA limits the permissible uses of Confidential Information, defined as “information disclosed in connection with the Proposed Arrangement,” to “evaluating, discussing, and negotiating” a business arrangement between RideMetric, Allstate, and Arity. (*Id.* ¶¶ 52–53.) The MNDA also states that the agreement did not grant any licenses or other rights to the

discloser's patents, trade secrets, or any other proprietary right and expressly provides that any disclosed Confidential Information remains "solely the property of the Discloser." (*Id.* ¶ 54.)

Operating under the protection of the MNDA, RideMetric provided Allstate with detailed presentations of its proprietary telematics solutions. (*Id.* ¶ 55.) Allstate actively sought out feedback, on ways to incorporate RideMetric's technology into its software application, which RideMetric provided. (*Id.* ¶¶ 58–59.) For example, in January 2016, the Inventors provided Allstate with a revised test plan to help improve Allstate's ability to evaluate RideMetric's technology and information about a software development kit developed by RideMetric. (*Id.* ¶ 60.) And, on the same day, the Inventors participated in a conference call with members of Allstate's team to discuss RideMetric's technology, during which they explained how RideMetric's proprietary technology could be used to overcome deficiencies in Allstate's Drivewise application. (*Id.* ¶ 61.) Shortly thereafter, on January 21, 2016, both Allstate and Arity ceased conversations regarding a possible licensing agreement with RideMetric, telling RideMetric that they intended to focus on other business priorities. (*Id.* ¶ 62.)

But, according to RideMetric, Allstate did not turn away from continuing to develop its mobile usage-based insurance applications and instead incorporated RideMetric's patented and proprietary information into its own product. (*Id.* ¶ 63.) Specifically, the Drivewise mobile application that Allstate developed uses phone sensors, including a smartphone's internal accelerometers, to monitor a customer's driving behavior. (*Id.* ¶¶ 65–66.) Furthermore, when the Drivewise mobile application identifies that a vehicle is currently being driven, it records telematics information (such as the speed and location of the vehicle) by initializing the smartphone's GPS capability. (*Id.* ¶ 67.) By at least June 2016, Esurance began offering customers the DriveSense Mobile App for use in its own usage-based insurance program. (*Id.* ¶ 78.) The



DriveSense mobile application operates similarly to the Drivewise mobile application. (*Id.* ¶¶ 79–80, 83–84.) Arity analyzes the telematics data collected by both Allstate’s and Esurance’s applications. (*Id.* ¶¶ 75, 86.) According to RideMetric, in designing and optimizing the programs, which are still offered to customers, Defendants both infringed on RideMetric’s patents and utilized proprietary information that RideMetric shared during the discussions in 2015 and 2016.

RideMetric now claims that both Drivewise and DriveSense infringe upon at least Claims 1–3, 5–9, and 15–18 of the ‘140 patent, Claims 1–12, 15, 17–21, 23, and 25 of the ‘609 patent, and all the claims of the ‘174 patent. Additionally, RideMetric alleges, based on information and belief, that those applications incorporate Confidential Information disclosed by RideMetric under the MNDA to improve the applications’ functionality, breaching the terms of the MNDA and violating the Illinois Trade Secrets Act.

## **LEGAL STANDARDS**

### **I. Motion to Dismiss**

Federal Rule of Civil Procedure 8(a) requires a complaint to contain “a short and plain statement of the claim showing that the pleader is entitled to relief.” Fed. R. Civ. P. 8(a)(2). To survive a motion to dismiss pursuant to Federal Rule of Civil Procedure 12(b)(6), a complaint’s factual allegations must be sufficient to give the defendant fair notice of the claim and the grounds upon which it rests, *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 555 (2007), and to “state a claim for relief that is plausible on its face,” *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2007) (quoting *Twombly*, 550 U.S. at 570). While a complaint need not contain detailed factual allegations, there “must be enough to raise a right to relief above the speculative level.” *Twombly*, 550 U.S. at 545. “A claim has facial plausibility when the plaintiff pleads factual content that allows the court to

draw the reasonable inference that the defendant is liable for the misconduct alleged.” *Adams v. City of Indianapolis*, 742 F.3d 720, 728 (7th Cir. 2014) (quoting *Iqbal*, 556 U.S. at 678).

## II. Patentable Subject Matter

Section 101 of the Patent Act defines patent-eligible subject matter, providing that “[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.” 35 U.S.C. § 101. The Supreme Court has clarified that § 101 contains three important implicit exceptions. *See Ultramercial, Inc. v. Hulu*, 772 F.3d 709, 714 (Fed. Cir. 2014). Specifically, “[l]aws of nature, natural phenomena, and abstract ideas are not patentable.” *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014) (quoting *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.* 569 U.S. 576, 589 (2013)). This principle recognizes that “[p]henomena of nature, though just discovered, mental processes, and abstract intellectual concepts . . . are the basic tools of scientific and technological work.” *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972). Thus, even if techniques claimed in a patent are “[g]roundbreaking, innovative, or even brilliant,” claims with innovations in an ineligible subject matter are nonetheless ineligible for patenting. *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1163 (Fed. Cir. 2018) (quoting *Ass’n for Molecular Pathology*, 59 U.S. at 591).

At the same time, however, a process is not unpatentable simply because it contains a law of nature or a mathematical algorithm,” and “an **application** of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.” *Diamond v. Dieher*, 450 U.S. 175, 187 (1981) (internal quotation marks omitted). Thus, when determining whether a patent’s claims relate to ineligible subject matter, it is critical to “distinguish[] between patent claims that impermissibly claim the ‘building blocks of human ingenuity’ and those that

‘integrate the building blocks into something more.’” *Thales Visionix, Inc. v. United States*, 850 F.3d 1343, 1346 (Fed. Cir. 2017) (quoting *Alice*, 573 U.S. at 217).

To help guide this analysis, the Supreme Court has crafted a two-part inquiry for patentability, commonly referred to as the *Alice* test after the case in which it was first explained. First, the Court must “determine whether the claims at issue are directed to a patent-ineligible concept.” *Alice*, 573 U.S. at 218. If the answer at the first step is yes, “at a second step [the Court] ask[s] whether the remaining elements, either in isolation or combination with the non-patent-ineligible elements, are sufficient to ‘transform the nature of the claim into a patent-eligible application.’” *Intell. Ventures I LLC v. Cap. One Bank (USA)*, 792 F.3d 1363, 1366–67 (Fed. Cir. 2015) (quoting *Alice*, 573 U.S. at 217). Essentially, the second step asks whether the claim contains an “inventive concept sufficient to bring the abstract idea into the realm of patentability.” *In re TLI Commc’ns. LLC Pat. Litig.*, 823 F.3d 607, 613 (Fed. Cir. 2018). Meeting the “inventive concept” requirement is no small feat, as a claim “cannot rely on the novelty of . . . discovery for the inventive concept necessary for patent eligibility.” *Genetic Techs. Ltd. v. Merial LLC*, 818 F.3d 1369, 1376 (Fed. Cir. 2016). Additionally, “[f]or the role of a computer in a computer-implemented invention to be deemed meaningful in the context of this analysis, it must involve more than performance of ‘well-understood, routine, [and] conventional activities previously known to the industry.’” *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat’l Ass’n*, 776 F.3d 1343, 1347–48 (Fed. Cir. 2016) (quoting *Alice*, 573 U.S. at 225).

## **DISCUSSION**

### **I. Resolution of Patent Eligibility on a Motion to Dismiss**

Determining patent eligibility under § 101 is an issue of law and therefore may properly be addressed in response to a motion to dismiss. *See, e.g., OIP Tech., Inc. v. Amazon.com, Inc.*, 788

F.3d 1359, 1362 (Fed. Cir. 2015). Nonetheless, sometimes the issue of whether a claim recites patent-eligible subject matter “may contain underlying facts.” *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1368 (Fed. Cir. 2018). Thus, “only when there are no factual allegations that, taken as true, prevent resolving the eligibility question as a matter of law,” should a court resolve patent eligibility under § 101 at the motion to dismiss stage. *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121, 1125 (Fed. Cir. 2018). As the § 101 inquiry is directed towards the language of the patent claims, there is often no such dispute and the Federal Circuit has “repeatedly affirmed § 101 rejections at the motion to dismiss stage, before claim construction or significant discovery has commenced.” *Cleveland Clinic Found. v. True Health Diagnostics LLC*, 859 F.3d 1352, 1360 (Fed. Cir. 2017) (collecting cases).

RideMetric contends that both factual disputes and the need for claim construction preclude a determination of patent eligibility at this stage. RideMetric first asserts that, absent fact-finding, the Court cannot determine that the combination of elements contained within the claims are routine or conventional under *Alice* step two. But that is not true. While being “mindful of extraneous fact finding outside the record, particularly at the motion to dismiss stage,” courts regularly and properly rely on the patent itself to determine at the motion to dismiss stage whether components recited in claims are “conventional” within the meaning of *Alice*. *In Re TLI*, 823 F.3d at 613–14 (looking to the specification, which described the components recited in the claims as “either performing basic computer functions such as sending and receiving data, or performing functions ‘known’ in the art” to determine in response to a motion to dismiss that the disputed patent was directed towards patent-ineligible subject matter); *see also Content Extraction*, 776 F.3d at 1348–49 (affirming the district court’s dismissal on the grounds that the claims were patent ineligible and relying on the language of the claims to conduct the *Alice* step two analysis).

Here, RideMetric cannot identify any plausible factual allegations material to a § 101 inquiry that would preclude a determination of patent eligibility. Indeed, RideMetric provides no examples of any such factual disputes, instead insisting that, as a blanket proposition, the Court cannot conclude that claim elements are not unconventional at this stage in the proceedings. But as discussed above, courts often *can* determine conventionality on a motion to dismiss. None of the cases to which RideMetric cites holds to the contrary. For instance, RideMetric cites *Visual Memory LLC v. NVIDIA Corp.*, 867 F.3d 1253, 1262 (Fed. Cir. 2017), for the proposition that “all factual inferences drawn from the specification must be weighed in favor . . . of the non-moving party.” But drawing all factual inferences from the complaint in favor of the non-moving party does not mean that a court must find that a dispute exists about those facts. Likewise, other cases on which RideMetric relies do not hold that a court is barred from finding the non-existence of an inventive concept based on the pleadings. Instead, those cases stand only for the proposition that, if a patent sufficiently alleges the existence of an inventive concept, then a dispute of fact exists as to whether that concept is truly inventive. *See Berkheimer*, 881 F.3d at 1369–70 (finding a genuine dispute of material fact sufficient to defeat summary judgment after determining that certain claims contained “limitations directed to the arguably unconventional inventive concept described in the specification”); *Berkeley\*IEOR v. Teradata Operations, Inc.*, 448 F. Supp. 3d 864, 873 (N.D. Ill. 2020) (finding that claims incorporating a “claimed unconventional combination [that] improves the functioning and operation of the computer itself” survived a motion to dismiss).

Similarly, RideMetric maintains that claim construction is required before the Court may rule on the merits of patent eligibility. Yet it is clearly established that, even when the parties raise a claim construction dispute at the Rule 12(b)(6) stage, a court still may properly proceed with a

§ 101 analysis. *See Aatrix*, 882 F.3d at 1125; *see also Bancorp Servs., LLC. v. Sun Life Assur. Co. of Can.*, 687 F.3d 1266, 1273 (Fed. Cir. 2012) (noting that “claim construction is not an inviolable prerequisite to a validity determination under § 101”); *Internet Pats. Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1348 (Fed. Cir. 2015) (granting a motion to dismiss before claim construction).

RideMetric points to *MyMail, Ltd. v. ooVoo, LLC*, 934 F.3d 1373 (Fed. Cir. 2019), where the Federal Circuit reversed a district court’s dismissal of a patent infringement claim on § 101 grounds when there was a dispute over claim construction, to support its position that claim construction must take place before a ruling on patent eligibility. *Id.* at 1380–81. But *MyMail* does not stand for the proposition that a court cannot reach the merits of a § 101 analysis at the Rule 12(b)(6) stage. Rather, the Federal Circuit found that the district court erred in “never address[ing] the parties’ claim construction dispute,” or “adopt[ing] [the plaintiff’s] proposed construction . . . for purposes of deciding [the defendants’] Rule 12(c) motions.” *Id.* at 1380. Thus, a court need not conduct claim construction to resolve a motion to dismiss so long as it either “adopt[s] the non-moving party’s constructions, or . . . resolve[s] the disputes to whatever extent is needed to conduct the § 101 analysis, which may well be less than a full, formal claim construction.” *Aatrix*, 882 F.3d at 1125 (internal citations omitted).

This Court therefore adopts RideMetric’s understanding of any disputed terms for purposes of ruling on the instant motion to dismiss. Despite RideMetric’s insistence that claim construction is relevant to deciding the issue of patent eligibility, it spends little time proposing its own constructions of disputed claim terms. In fact, RideMetric points to only two claim terms that “may” be relevant to the *Alice* analysis that they argue may require claim construction: “operation indicator” and “predetermined criteria.” Regarding “operation indicator[s],” the Court follows

RideMetric’s lead and looks to language in the specification that certain “data receiving units” “do not generate operation indicators” to guide its understanding of the term and find that it is more “limited in scope.” (‘140 pat. 3:64–66.) As described in the specification, those operation indicators are converted from signals (such as vibrations, acceleration, changes in force, and noise levels) received by the onboard sensor, which is part of the portable device. (*Id.* 3:58–67, 4:1–3.) The Court accepts this description and notes that not all data received will result in an operation indicator. In the same vein, RideMetric proposes that “predetermined criteria” be understood as “a set of rules to help determine the operational state of the vehicle.” (*Id.* 4:9–15.) As noted in the specification, the rules can be “as simple as a threshold” or something “more complex involving pattern recognition models where the models are created based on some training data.” (*Id.* 4: 11–16.) The Court conducts the following analysis with these constructions in mind.

## **II. Representative Claims**

When all the asserted claims are “substantially similar and linked to the same abstract idea,” it is appropriate to deem one claim representative of the others. *Content Extraction*, 776 F.3d at 1348 (internal quotation marks omitted). District courts routinely interpret *Content Extraction* as granting them the power to designate representative claims “even absent the parties’ agreement and in the face of the patentee’s specific objections.” *Front Row Techs., LLC v. NBA Media Ventures, LLC*, 204 F. Supp. 3d 1190, 1250–51 (D.N.M. 2016) (citing cases in which district courts, relying on *Content Extraction*, independently determine that certain claims are representative “without mentioning the need for an agreement, stipulation, or acquiescence by either side”). And the Federal Circuit has affirmed that “[c]ourts may treat a claim as representative in certain situations, such as if the patentee does not present any meaningful

argument for the distinctive significance of any claim limitations not found in the representative claim.” *Berkheimer*, 881 F.3d at 1365 (citations omitted).

The Federal Circuit has “never expressly addressed the legal framework for addressing disputes about representative claims.” *PPS Data, LLC v. Jack Henry & Assocs.*, 404 F. Supp. 3d 1021, 1029 (E.D. Tex. 2019). Although it is clear that just stating, “in a conclusory fashion,” that other patents or claims contain no “meaningful limitation” relating to patent eligibility is not enough, *Pragmatus Telecom, LLC v. Genesys Telecommunications Lab., Inc.*, 114 F. Supp. 3d 192, 199 (D. Del. 2015), district courts have taken varying approaches to determining how to resolve the issue of representativeness when disputed. *Front Row*, 204 F. Supp. 3d at 1249–50 (describing numerous approaches courts have taken to determine whether a claim is representative). Some courts have implemented a burden-shifting framework wherein the “initial burden of persuasion rests on the [movant] to identify a rationale for treating a given claim or claims as representative,” *PPS Data*, 404 F. Supp. 3d at 1030, while others request only that the movant give more than “negligible attention” to the non-designated claims. *Versata Software, Inc. v. NetBrain Techs, Inc.*, No. 13-676-LPS-CJB, 2015 WL 5768938, at \*4 (D. Del. Sep. 30, 2015). All these approaches can be seen as helping the Court decide, independently, whether there is in fact any “meaningful argument” for distinguishing the non-designated claims.

Here, Defendants have shown that Claim 1 of the ‘140 patent is representative of both the remaining asserted claims in the ‘140 patent and all the asserted claims in the ‘609 patent. And the Court further finds that Claim 1 of the ‘140 patent is also representative of Claim 5 of the ‘174 patent. *See Content Extraction*, 776 F.3d at 1348–49 (independently reviewing the asserted claims and determining that, contrary to the patent-owner’s objections, the claims were all “substantially



similar,” and therefore use of a representative claim was appropriate).<sup>7</sup> Defendants have identified a rationale for treating Claim 1 as representative and, critically, support their position with language taken directly from the claims, describing why various additional limitations fail to meaningfully transform. Specifically, Defendants contend, and the Court agrees, that all the relevant claims are directed toward the abstract idea of detecting the operational state of a vehicle and taking an action in response.

Nonetheless, RideMetric, urging the Court to apply a burden-shifting framework, contends that Defendants have failed to demonstrate that there are no legally relevant distinctions between the representative claim and the remaining asserted claims. But while RideMetric contends that Defendants have failed to provide an individualized analysis of the asserted claims, Defendants in fact specifically address many of the additional limitations to which RideMetric now points as being distinct. For instance, Defendants specifically discuss how Claim 3 (which recites a “geographic position”) and Claim 9 (which recites “determining the state of a vehicle by measuring its geographic position over time”) of the ‘140 patent still relate to the core idea contained within Claim 1 of the ‘140 patent. Defendants also explicitly address Claim 25 of the ‘609 patent, the sole asserted “apparatus” claim,<sup>8</sup> and walk through the impact of individual

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<sup>7</sup> Claim 5 of the ‘174 patent recites “a method of performing one or more actions on a portable device” by “monitoring at least one operation indicator” and “determining entirely or in part” both “one or more vehicle independent states” and “one or more vehicle dependent states” based on “predetermined criteria.” (‘174 pat., Claim 5.) RideMetric asserts that the additional step of determining vehicle independent and dependent states is enough to distinguish Claim 5. But this step is no more than specifying what output will be produced and fails meaningfully to differentiate Claim 5 from Claim 1 of the ‘140 patent.

<sup>8</sup> The analysis of an “underlying invention” does not change depending on whether the claim concerns an apparatus as opposed to a method. *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1374 (Fed. Cir. 2011) (“Regardless of what statutory category (“process, machine, manufacture, or composition of matter,” 35 U.S.C. § 101) a claim’s language is crafted to literally invoke, we look to the underlying invention for patent-eligibility purposes.”).

components of the claim. Far from treating the issue of representativeness in a conclusory fashion, Defendants thus provide a detailed explanation of their position that directly addresses concerns raised by RideMetric. Even assuming, without deciding, that the burden-shifting framework applies, Defendants have therefore established that Claim 1 of the ‘140 patent is representative of the additional 31 asserted claims.

That the ‘609 patent is separate from the ‘140 patent does not preclude this finding. In general, because patents “must contain distinct inventions,” “claims in one patent typically do not represent claims in another patent.” *PPS Data*, 404 F. Supp. 3d at 1031; *see also Novartis Pham. Corp. v. Breckenride Pharm.*, 909 F.3d 1355, 1362 (Fed. Cir. 2018) (describing how the doctrine of “obviousness-type double patenting,” in which claims recite similar, even if not identical, inventions, forecloses patentability for the second claims). Even if not dispositive, however, the existence of a terminal disclaimer “is a strong clue that a patent examiner and, by concession, the applicant, thought the claims . . . lacked a patentable distinction over the parent.” *PPS Data*, 404 F. Supp. 3d. at 1034. (citing *SimpleAir, Inc. v. Google LLC*, 884 F.3d 1160, 1168 (Fed. Cir. 2018)).<sup>9</sup> The key, as with any analysis of patent eligibility, is that the inquiry be “directly tethered to the claim language.” *Solutran, Inc. v. Elavon, Inc.*, 931 F.3d 1161, 1168 (Fed. Cir. 2019). And here, the Court finds that the language of the claims in the ‘609 patent recites claims directed to the same abstract idea as those in the ‘140 patent.

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<sup>9</sup> The Court may consider the prosecution history of a patent in connection with a motion to dismiss. *See OIP Tech.*, 788 F.3d at 1363 (remarking upon the prosecution history to interpret the patent claims when reviewing a motion to dismiss); *see also Amgen Inc. v. Coherus BioSciences Inc.*, 931 F.3d 1154, 1159–60 (Fed. Cir. 2019) (affirming a grant of judgment on the pleadings that prosecution history estoppel barred the plaintiff’s claims).

Accordingly, the Court will treat Claim 1 as representative of the remaining claims in the ‘140 patent, the asserted claims in the ‘609 patent, and Claim 5 of the ‘174 patent for purposes of the § 101 analysis.

### **III. Patent Eligibility**

The Court next turns to the question of patent eligibility, applying the two-step *Alice* test. The Court begins by addressing the claims encompassed by the representative Claim 1 of the ‘140 patent, which Defendants assert is patent-ineligible under § 101 as directed towards an abstract idea. The Court then turns to the remaining claims in the ‘174 patent, which Defendants contend are merely recitations of a law of nature and therefore similarly patent-ineligible.

#### **A. ‘140 Patent**

##### **1) Step 1**

Step one of the *Alice* inquiry requires the Court to determine whether Claim 1 of the ‘140 patent is “directed to one of those patent-ineligible concepts.” *Alice*, 573 U.S. at 217. “The ‘abstract ideas’ category embodies the ‘longstanding rule’ that ‘an idea of itself is not patentable.’” *Id.* (quoting *Gottschalk*, 409 U.S. at 67). But, as the Federal Circuit has acknowledged, “distinguishing between claims that recite a patent-eligible invention and claims that add too little to a patent-ineligible abstract concept can be difficult, as the line separating the two is not always clear.” *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1255 (Fed. Cir. 2014). In doing so, courts must take care not to overgeneralize claims, as ultimately all inventions can be reduced to abstract principles. *Diamond*, 450 U.S. at 189 n.12. At the same time, “the judicial inquiry should endeavor to root out creative ‘drafting effort[s] designed to monopolize [the abstract idea].’” *Va. Innovation Scis. Inc. v. Amazon.com, Inc.*, 227 F. Supp. 3d 582, 592 (E.D. Va. 2017) (quoting *Alice*, 573 U.S. at 221). Therefore, at step one, courts should consider

whether the “character as a whole” of the claims is directed, not merely related, to an abstract idea. *See Enfish LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335–36 (Fed. Cir. 2016).

Over the years the Federal Circuit has considered this issue in numerous cases, and those “decisions [now] provid[e] substantial guidance in determining whether claims are unpatentable under the ‘abstract idea’ rubric.” *Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1258 (Fed. Cir. 2016). The Federal Circuit repeatedly has found that claims directed to the automation of the collection, analysis, manipulation, or display of information are directed to an abstract idea. *Univ. of Fla. Rsch. Found. v. Gen Elec. Co.*, 916 F.3d 1363, 1367 (Fed. Cir. 2019) (collecting cases). Accordingly, the Federal Circuit has found claims directed to “processing sensor data on an oil well drill,” *TDE Petroleum Data Solutions, Inc. v. AKM Entertainment Inc.*, 657 F. App’x 991, 992 (Fed. Cir. 2016), and a “motion sensor system that evaluates and communicates the relative movement of a body using static and dynamic acceleration information collected from sensors” ineligible under § 101 as directed toward the abstract idea of gathering, processing, and displaying data, *iLife Technologies, Inc. v. Nintendo of America Inc.*, 839 F. App’x 534, 536–38 (Fed. Cir. 2021). *See also SAP Am.*, 898 F.3d at 1167 (holding that claims reciting methods of performing statistical analysis were directed to the abstract idea of “selecting certain information, analyzing it using mathematical techniques, and reporting or displaying the results of the analysis”); *BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1283, 1286 (Fed. Cir. 2018) (finding that patents directed towards “indexing software,” which “organizes information about various items using classifications, parameters, and values,” were directed to the abstract idea of “considering historical usage information while inputting data”)

Additionally, to help determine whether a claim embodies an abstract idea, courts often consider whether the steps “can be performed in the human mind, or by a human using pen and

paper.” *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372 (Fed. Cir. 2011); *see also Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1147 (Fed. Cir. 2016) (holding that a method relating to circuit design that provided a computerized means to translate functional descriptions of circuits into hardware component descriptions of those circuits “[could] be performed mentally or with pencil and paper” and were thus directed towards a patent-ineligible abstract idea). The Federal Circuit has repeatedly treated “analyzing information by steps people go through in their minds, or by mathematical algorithms, without more, as essentially mental processes within the abstract-idea category.” *Elec. Power Grp., LLC v. Alstom, S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016) (collecting cases).

Claim 1, as well as the remaining asserted claims in the ‘140 and ‘609 patents, is directed to the collection, analysis, and display of information. Specifically, the claims are directed to the abstract idea of detecting the motion or state of a vehicle and taking a corresponding action. Similar to the claims at issue in *TDE Petroleum* and *iLife*, Claim 1 simply collects information from outside sources, compares it to pre-selected criteria, and then displays or directs a corresponding result. Critically, neither Claim 1 nor any other claim provides technical details as to how this monitoring or analysis should be accomplished. Instead, the claims recite references to generic sensors that the relevant portable device already contains and indicates that those sensors, not designed or provided by RideMetric, will somehow record the necessary external information that RideMetric’s technology will later analyze. Looking at these steps as a whole, the claims are directed to the concept of utilizing smartphones to collect data on various external physical indicators, evaluating those inputs, and reaching a conclusion about the operational state of a vehicle. *See Univ. of Fla. Rsch. Found.*, 916 F.3d at 1367.

This finding is further bolstered by the fact that the “series of steps covered by the asserted claims . . . could all be performed by humans without a computer.” *Mortg. Grader, Inc. v. First Choice Loan Servs., Inc.*, 811 F.3d 1314, 1324 (Fed. Cir. 2016). As long as there have been vehicles, humans have monitored the motion and state of their vehicles and taken actions in response. A passenger may, through their own observations, detect a “change from an engine is off state to a vehicle is moving state” and decide to turn on the “do not disturb” function on their phone, or make note of where they have parked. And for greater accuracy in carrying out such monitoring, humans turn to other sensors such as accelerometers, radar detectors, or GPS devices. RideMetric makes much of the fact that humans could not “continuously and transparently” provide the data inputs or do so at the same level as accelerometers or other on-board components. But Claim 1 simply recites using an accelerometer and other generic sensors to monitor a vehicle, essentially placing an unspecified “portable device” into the role typically occupied by a human. And to be patentable, claims must consist of much more than the “mere automation of manual processes using generic computers.” *Credit Acceptance Corp. v. Westlake Servs.*, 859 F.3d 1044, 1055 (Fed. Cir. 2017). Indeed, the Federal Circuit has spoken against so-called “quintessential ‘do it on a computer’ patents.”

RideMetric admits that the insight Claim 1 captures is that a “smartphone’s other built-in components could detect such changes through ‘operation indicators’ without relying on [a] car’s OBDS or smartphone GPS.” (Pls.’ Resp. to Mot. to Dismiss at 5, Dkt. No. 34.) Essentially, RideMetric itself recognizes that it seeks to patent the abstract idea of using a smartphone’s sensors to monitor external outputs and, based on those readings, detect a change in various physical states (such as motion, speed, or direction). RideMetric attempts to limit this claim by applying it only in the context of monitoring vehicles, arguing that the concept is concrete

because it solves the problem of monitoring cars without using too much battery power or tying a monitor to a specific vehicle rather than driver. But it is well established that simply “limiting an abstract idea to one field of use or adding token postsolution components d[oes] not make the content patentable.” *Bilski v. Kappos*, 561 U.S. 593, 612 (2010); *see also Accenture Glob. Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1345 (Fed. Cir. 2013) (noting that “attempts to limit” an abstract idea by “applying it in a computer environment and within the insurance industry” do not “narrow, confine, or otherwise tie down the claim” (internal quotation marks omitted)).

Of course, not all patents related to implementing a method via a computer are necessarily directed towards an abstract idea. Specifically, claims directed to an improvement in computer performance are not are not directed to an abstract idea. *See, e.g., Enfish*, 822 F.3d at 1338–39 (finding that patent claims “directed to a specific implementation of a solution to a problem in the software” satisfied *Alice* step one); *DDR Holdings*, 773 F.3d at 1257 (holding that claims that “do not merely recite the performance of some business practice known from the pre-Internet world along with the requirement to perform it on the Internet” and instead were “rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks” were not directed to an abstract idea); *cf. Bancorp Servs.*, 687 F.3d at 1278 (Fed. Cir. 2012) (noting that the asserted claims failed to “represent[] improvements to computer technologies in the marketplace” but “merely employ[ed] computers to track, reconcile, and administer a life insurance policy . . . *i.e.*, the computer simply perform[ed] more efficiently what could otherwise be accomplished manually”).

Courts must carefully distinguish between claims that go towards the functionality of the computer itself and those that merely utilize a computer. *See, e.g., Customedia Tech., LLC v. Dish*

*Network Corp.*, 951 F.3d 1359, 1362–65 (Fed. Cir. 2020) (finding that the plaintiff failed to show that claims reciting a “data delivery system for providing automatic delivery of specifically identified advertising data,” which worked by dedicating a section of computer memory to advertising data, did not improve the functioning of the computer itself but rather “use[ed] a computer only as a tool”). Thus, “[i]n cases involving software innovations, [the *Alice* step one] inquiry often turns on whether the claims focus on the specific asserted improvement in computer capabilities or, instead, on a process that qualifies as an abstract idea for which computers are invoked merely as a tool.” *Finjan, Inc. v. Blue Coat Sys., Inc.*, 879 F.3d 1299, 1303 (Fed. Cir. 2018) (internal quotation marks omitted).

According to RideMetric, its patents (particularly the ‘609 patent) are directed to the solution of a particular technological problem. It insists that Claim 1’s technical innovation improves the operation of smartphones in vehicles. But nothing in Claim 1, or any of the asserted claims, improves the functionality of the device used. In fact, the ‘140 patent never specifies which type of “portable device” is needed, and the ‘609 patent only mentions that the portable device could be either a key fob or a smartphone (which, the Court notes, contain very different levels of technological sophistication). The technological innovation in smartphones asserted by RideMetric is merely that applications utilizing its method are more battery efficient than those that rely on GPS, not that RideMetric has meaningfully improved the hardware or made operational changes to the software and because RideMetric’s applications draw information from a different input. Plainly stated, this is not a “specific improvement to the way computers operate.” *Enfish, LLC*, 822 F.3d at 1336. Instead, it is a realization that one feature of a computer may be better suited to perform a task than another.



The patents RideMetric cites to support its position are readily distinguishable. In *CardioNet, LLC v. InfoBionic, Inc.*, 955 F.3d 1358 (Fed. Cir. 2020), the claims were directed to a “specific technological improvement—*an improved medical device.*” *Id.* at 1370 (emphasis added). But here, RideMetric does not improve the portable device itself; indeed, RideMetric does not even specify what device must be used, instead referencing a generic “portable device.” Likewise, in *Koninklijke KPN N.V v. Gemalto M2M GmBH*, 942 F.3d 1143, 1150 (Fed. Cir. 2019), the patent focused on claims that “recite[d] a specific means or method that solve[d] a problem in an existing technological process.” *Id.* at 1151 (describing claims that specifically recited a method enabling “the detection of persistent systematic errors in data transmissions that prior art systems were previously not equipped to detect”). Yet Claim 1 makes no improvements to any specific technology; instead, it proposes using an alternative form of prior art to evade the hassle and inefficiencies created by using other technology.

In sum, the Court concludes that Claim 1 is directed towards the abstract idea of using an unspecified portable device to detect the operational state of a vehicle.

## 2) Step 2

Having answered the first step of the *Alice* inquiry in the affirmative, the Court now turns to the second step and addresses whether the asserted claims contain an “inventive concept sufficient to ‘transform’ the claimed abstract idea into a patent-eligible application.” *Alice*, 573 U.S. at 221 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 79 (2012)). To do so, the Court must “consider the elements of each claim both individually and ‘as an ordered combination.’” *Alice*, 573 U.S. at 217 (quoting *Mayo*, 566 U.S. at 79) Thus, “an inventive concept can be found in the non-conventional and non-generic arrangement of known, conventional pieces.” *Bascom Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341,

1350 (Fed. Cir. 2016). However, if the additional asserted elements “involve ‘well-understood, routine, [and] conventional activity previously engaged in by researchers in the field,’ they do not constitute an ‘inventive concept.’” *Aatrix*, 882 F.3d at 1128 (quoting *Mayo*, 566 U.S. at 73.)

Conducting the step two analysis here, it is clear that Claim 1 lacks an inventive concept sufficient to transform the abstract idea into a patentable one. The recited elements—such as “operation indicator,” “on-board component of the portable device,” “predetermined criteria,” and “operational states”—all are either generic computer elements or basic functional language. “Instructing one to ‘apply’ an abstract idea and reciting no more than generic computer elements performing generic computer tasks does not make an abstract idea patent-eligible.” *Intell. Ventures I*, 792 F.3d at 1368 (citing *Alice*, 573 U.S. at 225–26). And there is nothing to indicate that any of the claims use these generic elements for anything other than their intended use. For instance, on-board components of the portable device, such as accelerometers, are used for their intended purpose of measuring various inputs like speed, vibrations, and noise levels. Indeed, RideMetric seems to accept that the identified limitations constitute generic computer terms implemented in their ordinary manner.

Nonetheless, RideMetric insists that the “ordered combination” of the steps provides the inventive concept. In particular, RideMetric contends that the order of “continuously and transparently” monitoring an “operation indicator” created by an “on-board component” when located inside a vehicle and using that information in conjunction with “predetermined criteria” to detect “operational states” provides the inventive concept. But “enumerating types of information and information sources” is not enough, on its own, to constitute an inventive concept. *Elec. Power Grp.*, 830 F.3d at 1355 (“[M]erely selecting information, by content or source, for collection, analysis, and display does nothing significant to differentiate a process from ordinary

mental processes.”) RideMetric points to nothing inventive about the combination, which follows the logical and traditional order of receiving data, analyzing its contents, and taking action based on those findings. Given the high level of generality used in the language of the claims (“monitoring,” “detecting,” “determining,” and “performing” various steps), the Court finds that the ordered combination fails to show that it is distinctive or innovative enough to demonstrate an inventive concept. *See, e.g., Two-Way Media Ltd. v. Comcast Cable Commc’ns, LLC*, 874 F.3d 1329, 1339 (Fed. Cir. 2017) (finding that a claim referring to data “complying with the specifications of a network communication protocol” and routing data in response to certain signals, “without specifying the rules forming the communication protocol or . . . parameters for the user signals” lacked an inventive concept).

The use of a computer, or as here, sensors on a “portable device” does not supply the necessary inventive concept. “[I]n addressing the second step of *Alice*, . . . claiming the improved speed or efficiency inherent with applying the abstract idea on a computer [does not] provide a sufficient inventive concept.” *Intell. Ventures I*, 792 F.3d at 1367. RideMetric contends that it is the idea to use a smartphone’s pre-existing internal sensors, rather than another device (such as a dongle), that provides the necessary inventive concept. But again, that formulation implicitly admits that what RideMetric seeks to patent is a specific *idea*. If saying “take a computer and apply it” is not enough to supply an inventive concept, surely it is not enough to say “take this *different* computer and apply it.” *See Alice*, 573 U.S. at 221 (“[T]ransformation into a patent-eligible application requires more than simply stating the abstract idea while adding the words ‘apply it.’” (internal quotation marks omitted)).

In conclusion, the Court finds that Claim 1 of the ‘140 patent, and therefore the remaining asserted claims in the ‘140 patent, the ‘609 patent, and Claim 5 of the ‘174 patent, is directed to

the abstract idea of monitoring the motion or state of a vehicle and taking an action in response and lacks an inventive concept. Therefore, the claims are invalid under 35 U.S.C. § 101.

## **B. ‘174 Patent**

The Court next turns to Claims 1–4 of the ‘174 patent.<sup>10</sup> Like a law of nature, a “mathematical formula . . . cannot be the subject of a patent.” *Diamond*, 450 U.S. at 185–86. It is true that some applications of laws of nature may be patent eligible. *See id.* at 188 (holding that while a mathematical equation was “not patentable in isolation,” a process that used it “at the very least [may] not [be] barred at the threshold by § 101). But courts also recognize the risk of preempting the use of the specified concept or mathematical formula in all fields. *Bilski*, 561 U.S. at 611–12. Therefore, “adding ‘conventional steps, specified at a high level of generality,’ to a law of nature does not make a claim to the law of nature patentable.” *Athena Diagnostics, Inc. v. Mayo Collaborative Servs., LLC*, 915 F.3d 743, 749 (Fed. Cir. 2019) (quoting *Mayo*, 566 U.S. at 82).

Claims 1–4 of the ‘174 patent, in RideMetric’s words, are directed towards laws of nature. Specifically, RideMetric asserts that the claims use physics to determine whether a vehicle is accelerating or decelerating during a turn. Nonetheless, RideMetric maintains that the formulation is still patentable as an application of the mathematical equations directed towards a specific problem—namely, calculating the acceleration vector when a vehicle is turning. The claims, however, consist of bare recitations of basic physics. For instance, Claim 1 recites a single-step “method of detecting the condition of a vehicle turning” by “estimating an angle of how closely a

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<sup>10</sup> As previously noted, the Court determines that Claim 1 of the ‘140 patent is representative of Claim 5 of the ‘174 patent, which recites a “method of performing one or more actions on a portable device” by “monitoring at least one operation indicator,” “detecting” when the indicator meets certain criteria, and “determining entirely or in part” both “one or more vehicle independent states” and “one or more vehicle dependent states.” (‘174 pat., Claim 5.) As such, Claim 5 is invalid under the analysis detailed above.

rotation vector is aligned with a gravity vector,” and Claim 2 adds only that the probability that a vehicle is turning can be estimated as a function of that angle. But as Defendants note, the relationship between a rotation vector and a gravity vector rests upon bedrock principles of physics. The claims do no more than detail a mathematical formula by which one can solve for “y,” with “y” being the probability of turning. Likewise, Claim 3 simply restates the principle that one can calculate whether a vehicle is accelerating or decelerating through the use of a movement and speed vector. And Claim 4 only adds to Claim 3 an estimation of the probability that the vector is an acceleration or deceleration vector. The claims do not even specify how the necessary angles between vectors are to be calculated, but instead assume that the calculation will be completed. In essence, Claims 1–4 of the ‘174 patent lay out a series of steps dictated by the relevant mathematical formula; they add nothing new.

*Diamond* and *Thales* are instructive, but not in RideMetric’s favor. In *Diamond*, the Supreme Court found that while a patent reciting a method for curing rubber used a mathematical equation to calculate optimal cure time, the method claim was still patent eligible. *Diamond*, 450 U.S. at 184. Specifically, the Supreme Court found that “when a claim containing a mathematical formula implements or applies that formula in a structure or process which, when considered as a whole, is performing a function which the patent laws were designed to protect . . . then the claim satisfies the requirements of § 101.” *Id.* at 192. But in *Diamond*, the claims recited more than just the application of the formula; the process involved “the continuous measuring of temperature inside [a] mold cavity, the feeding of this information to a digital computer which constantly recalculate[d] the cure time, and the signaling by the computer to open the press, all new in the art.” *Id.* at 179. The ‘174 patent’s claims hardly describe a “step-by-step” method for achieving the desired result. To the contrary, the ‘174 patent does not even specify how critical calculations,

such as the estimated angle between vectors, are calculated. Instead, the method merely provides instructions to use basic concepts of physics describing a moving object to calculate an operational state—namely, the rotation and acceleration of a vehicle.

Similarly, the claim at issue in *Thales* concerned “a particular configuration of inertial sensors and a particular method of using the raw data from the sensors,” and the “mathematical equations [were] a consequence of the arrangement of the sensors and the unconventional choice of reference frame in order to calculate position and orientation.” *Thales*, 850 F.3d at 1349. By contrast, RideMetric’s claims do not “seek to protect . . . the application of physics to [an] unconventional configuration of sensors” or other associated technology. *Id.* Only Claim 5 of the ‘174 patent even mentions technology, and even then it refers to a generic “portable device.” Claims 1–4 recite no technology whatsoever. In contrast to the claims considered in *Diamond* and *Thales*, where a large part of the innovation existed in the process for receiving the necessary data inputs for the mathematical formula, the claims from the ‘174 patent provide a bare recitation of methods of “detecting” or “estimating” with no more elaboration.

RideMetric essentially seeks to patent observations about how vectors can describe various aspects of a moving object. Its attempts to limit its claims by confining them to the context of a vehicle cannot overcome this fact. *See Intell. Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1314 (Fed. Cir. 2016) (noting that applying an idea to a “particular technological environment” does not make an abstract idea concrete). And RideMetric does not even attempt to argue that the claims contain an inventive concept so as to pass muster under step two of the *Alice* inquiry, instead contending only that the claims are not directed to an abstract idea. Accordingly, Claims 1–4 of the ‘174 patent are invalid under 35 U.S.C. § 101.

#### **IV. Breach of Contract**

In addition to its patent infringement claims, RideMetric has asserted a claim against Allstate and Arity for breach of the MNDA. Under Illinois law,<sup>11</sup> to state a claim for breach of contract, a plaintiff must plead “(1) the existence of a valid and enforceable contract; (2) substantial performance by the plaintiff; (3) a breach by the defendant; and (4) resultant damages.” *Reger Dev., LLC v. Nat’l City Bank*, 592 F.3d 759, 764 (7th Cir. 2010). The MNDA provides that confidential information “shall not be disclosed or used except as expressly permitted [t]herein.” (Compl. Ex. D § 4, Dkt. No. 1-4.) RideMetric does not allege that Allstate or Arity improperly disclosed any confidential information, but rather asserts that Allstate and Arity used the confidential information in their own applications. According to Defendants, however, RideMetric has failed to plead facts which, if accepted as true, support a plausible inference that Defendants used RideMetric’s confidential information.

Contrary to Defendants’ assertion, however, RideMetric has adequately pleaded the elements of a breach of contract claim. In the Complaint, RideMetric identifies specific confidential information (like solutions to their applications’ issues with GPS) that was provided to Allstate and Arity. RideMetric goes on to allege that, “[o]n information and belief,” Allstate and Arity “used [that information] in the development of at least the Drivewise application and to process the telematics data collected through Allstate’s Drivewise application and Esurance’s DriveSense application.” (Compl. ¶¶ 174–75.) Such unauthorized use of the confidential information violates the express terms of the MNDA and would constitute a breach of that agreement.

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<sup>11</sup> The parties do not dispute that Illinois law applies, consistent with a choice-of-law provision in the MNDA. (Compl., Ex. D § 17, Dkt. No. 1-4.)

Nevertheless, Defendants maintain that RideMetric's allegations are merely conclusory and that there are no facts from which a factfinder could draw the reasonable inference that any improper use occurred. But more than merely alleging facts supporting a plausible inference that Defendants used its confidential information, RideMetric explicitly alleges that they did so. That the allegation relies on "information and belief" is of no moment, as courts recognize that "on merits issues, information and belief allegations are perfectly fine in appropriate circumstances, where the basis for the contention is not something properly within plaintiff's personal knowledge." *Brickstructures, Inc. v. Coaster Dynamix, Inc.*, NO. 16 CV 10959, 2017 WL 4310671, at \*4 (N.D. Ill. Sep. 28, 2017); *see also Brown v. Budz*, 398 F.3d 904, 914 (7th Cir. 2005). Here, RideMetric lacks personal insight into Allstate and Arity's own proprietary products.

And in any case, RideMetric does allege facts that, when viewed in the light most favorable to RideMetric, lead to the plausible inference that Allstate and Arity used confidential information received from RideMetric in violation of the MNDA. RideMetric alleges that Arity and Allstate abruptly ceased communications after months of detailed discussions with RideMetric, including conversations where the Inventors specifically detailed to Arity's and Allstate's representatives how RideMetric's confidential technology could address identified deficiencies in Allstate's and Arity's own product offerings. Thereafter, RideMetric alleges, the Drivewise and DriveSense applications appeared to incorporate features closely related to the subjects of the confidential technology RideMetric disclosed, such as parking reminders and leveraging a smartphone's internal accelerometers to detect changes in the vehicle's operational state. The sudden cessation of what had been, to that point, seemingly productive discussions between RideMetric and Defendants, followed by Allstate's and Arity's release of products containing features that had been discussed by the parties, supports a reasonable inference that



Allstate and Arity, after receiving solutions for their problems from RideMetric, saw no reason to continue negotiations and simply used RideMetric's technology as needed. That alleged series of events meets the plausibility standard required to survive a challenge under Rule 12(b)(6).

Accordingly, Defendants' motion to dismiss Count IV is denied.

## **V. Misappropriation of Trade Secrets**

RideMetric also asserts a state-law claim for misappropriation of trade secrets. To state a claim for misappropriation of trade secrets under the Illinois Trade Secrets Act ("ITSA"), 765 ILCS 1061/1 *et seq.*, "a plaintiff must show that (1) a trade secret existed, (2) the trade secret was misappropriated, and (3) the owner of the trade secret was damaged by the misappropriation." *Covenant Aviation Sec., LLC v. Berry*, 15 F. Supp. 3d 813, 817 (N.D. Ill. 2014) (collecting cases). Defendants move to dismiss this claim on the grounds that RideMetric fails to plead with sufficient specificity the existence of a trade secret and thus cannot successfully allege a claim under the ITSA.

But a plaintiff need not disclose its alleged trade secrets to survive a motion to dismiss. *Fire 'Em Up, Inc. v. Technocarb Equip. (2004) Ltd.*, 799 F. Supp. 2d 846, 850 (N.D. Ill. 2011). Instead, courts have found trade secret allegations to be "adequate in instances where the information and the efforts to maintain its confidentiality are described in general terms." *Covenant Aviation*, 15 F. Supp. 3d at 818 (collecting cases). Thus, only in the most "extreme cases" do courts dismiss for lack of specificity on the pleadings. *Mission Measurement Corp. v. Blackbaud, Inc.*, 216 F. Supp. 3d 915, 921–22 (N.D. Ill. 2016) (internal quotation marks omitted) (holding that general references to business models, business plans, and product development plans was enough to plead satisfactorily the existence of trade secrets). This is because determining "whether something is a trade secret is one of the most elusive and difficult concepts

in the law to define,” and thus is “ordinarily . . . best resolved by a fact finder after full presentation of evidence from each side.” *Liion, LLC v. Vertiv Grp. Corp.*, No. 18 C 6133, 2019 WL 1281977, at \*2 (N.D. Ill. Mar. 20, 2019) (internal quotation marks omitted). Therefore, while a plaintiff asserting a claim for misappropriation of trade secrets “must do more than point to broad areas of information and assert that something there must have been secret and misappropriated,” a showing of “concrete secrets” will sustain the action. *Carpenter v. Aspen Search Advisers, LLC*, No. 10 C 6823, 2011 WL 1297733, at \*3 (N.D. Ill. Apr. 5, 2011) (citations omitted).

Here, RideMetric has provided more than a bare description of purported trade secrets. RideMetric alleges that the purported trade secrets relate to specific technological improvements, such as ways of leveraging a smartphone’s internal sensors to generate reliable and accurate operation indicators and means of integrating RideMetric’s methods into smartphone mobile applications meant to help run insurers’ usage-based insurance programs, that go beyond the descriptions included in the patent application. Even the cases to which Defendants cite support a finding that this is enough at the pleading stage. *See, e.g., Invado Pharm., Inc. v. Forward Sci. Distrib. LLC*, No. 18 C 2515, 2018 WL 5013556, at \*3 (N.D. Ill. Oct. 16, 2018) (finding that the plaintiff “sufficiently allege[d] the existence of a trade secret by identifying its trade secrets and confidential business practices, including but not limited to proprietary and confidential information regarding [the plaintiff’s] manufacturing, distribution, pricing strategies, sales, and industry relationships, and other business proprietary information”); *GoHealth, LLC v. Simpson*, No. 13 C 02334, 2013 WL 6183024, at \*12 (N.D. Ill. Nov. 26, 2013) (holding that allegations that defendants “maintained valuable and proprietary trade secret processes, systems, and technology” for their call center that enabled “more and quicker responses . . . and was able to convert those

responses to sales of policies at rates far above the average” was enough to plausibly plead a counterclaim for an ITSA violation). In fact, RideMetric provides even more detail, specifying not just the type of information alleged to be a trade secret but also identifying specific instances when the Inventors explained to Defendants how RideMetric’s claimed proprietary techniques applied to noted deficiencies in Defendants’ own applications. These allegations are more than enough to satisfy the pleading requirements.

Finally, Defendants contend that RideMetric’s trade secret allegations are inconsistent with its obligations under the MNDA. They claim that under the terms of the MNDA because RideMetric failed to identify trade secrets, the parties’ obligations did not extend beyond the agreement’s two-year term starting December 4, 2015. But Allstate and Arity had an obligation to treat all information, regardless of whether it was identified as a trade secret, as confidential during the two-year term of the MNDA. And the Complaint alleges that Allstate and Arity incorporated RideMetric’s trade secrets and patented technology into their software during that two-year term; in fact, RideMetric alleges they were doing so while the discussions were ongoing. Therefore, RideMetric’s claims under the ITSA are not inconsistent with the MNDA.

For these reasons, Count V also survives Defendants’ motion to dismiss.<sup>12</sup>

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<sup>12</sup> The Court notes that this case was originally brought invoking federal question jurisdiction. 28 U.S.C. § 1331. As a result of this ruling, the claims grounded in federal patent law are dismissed and only state-law claims remain. Based on the pleadings and representations by the parties in open court, it appears that this Court has diversity jurisdiction over the surviving state-law claims pursuant to 28 U.S.C. § 1332. RideMetric seeks damages in excess of \$75,000 for both the breach of contract and misappropriation of trade secrets claims, and the parties have represented that there is complete diversity of citizenship. To confirm that the latter requirement is satisfied, the Court will require RideMetric and Arity, which are limited liability companies, to file a statement confirming the citizenships of their respective members.

## CONCLUSION

For the foregoing reasons, Defendants' motion to dismiss (Dkt. No. 30) is granted with respect to Counts I, II, and III and denied with respect to Counts IV and V.

ENTERED:

A handwritten signature in black ink, appearing to read "Andrea R. Wood", written over a horizontal line.

Andrea R. Wood  
United States District Judge

Dated: December 22, 2021